



Attorney's Docket No. MPI1999-016CP1CN1(M)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hodge, Martin R.

Application No.: 09/965,313

Group No.: \*\*\*1644\*\*\*

Filed: September 26, 2001

Examiner: \*\*\*Not Assigned\*\*\*

For: NOVEL IL-9/IL-2 RECEPTOR-LIKE MOLECULES AND USES THEREFOR

Assistant Commissioner for Patents  
Washington, D.C. 20231

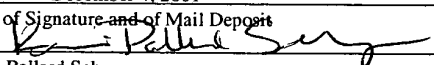
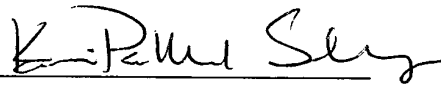
TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
WITHIN THREE MONTHS OF FILING OR  
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. section 1.97(b))

Transmitted herewith are:

- ☒ Transmittal letter (1 page)(in duplicate).
- ☒ Information Disclosure Statement (3 pages).
- ☒ Forms PTO/SB/08A and 08B (substitute for Form PTO-1449) (2 pages).
- ☒ Return receipt postcard.

IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING  
INFORMATION DISCLOSURE STATEMENT

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 C.F.R. section 1.97(b).

<p><u>Certificate of First Class Mailing (37 CFR 1.8(a))</u></p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on the date set forth below.</p> <p>December 4, 2001</p> <p>Date of Signature and of Mail Deposit</p> <p></p> <p>Kerri Pollard Schray</p>	<p>MILLENNIUM PHARMACEUTICALS, INC.</p> <p>By </p> <p>Kerri Pollard Schray Registration No. 47,066 75 Sidney Street Cambridge, MA 02139 Telephone - 617-551-3676 Facsimile - 617-551-8820</p>
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**INFORMATION DISCLOSURE STATEMENT**

**List of Sections Forming Part of This Information Disclosure Statement**

The following sections are being submitted for this Information Disclosure Statement:

1. Forms PTO/SB/08A and 08B (formerly Form PTO-1449)
2. Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted
3. Copies of Listed Information Items Accompanying This Statement
4. Identification of Person(s) Making This Information Disclosure Statement

**Section 1. Forms PTO/SB/08A and 08B (substitute for Form PTO-1449)**

(Included herewith are form(s) PTO/SB/08A [Form 6-2] and/or form(s) PTO/SB/08B [Form 6-2.1].)

**Section 2. Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted**

This application relies, under 35 U.S.C. section 120, on the earlier filing date of prior application USSN.: 09/574,100, filed on May 18, 2000.

This application also relies, under 35 U.S.C. section 120, on the earlier filing date of prior application USSN.: 09/313,913, filed on May 18, 1999.

The following references were submitted to, and/or cited by, the Office in the prior applications and, therefore, are not required to be provided in this application:

US 5,168,062	Stinski	12-01-1992
US 6,057,128	Donaldson et al	05/02/2000
WO 99/47675	Genetics Institute, Inc.	09/23/1999
WO 99/67290	Chugai Research Institute For Molecular Medicine, Inc.	12/29/1999
WO 00/08152	Regeneration Pharmaceuticals, Inc.	02/17/2000

HILLIER et al., Generation and Analysis of 280,000 Human Expressed Sequence Tags, *Genome Research*, (1996) pp 807-828, Vol. 6

LOFTUS et al., Genome Duplications and Other Features in 12 Mb of DNA Sequence from Human Chromosome, *Genomics*, 1999, pp 295-308, Vol 60

SCHMITT et al., Affinity Purification of Histidine-Tagged Proteins, *Molecular Biology*, 1993, pp 223-230, Vol 18

BAUER et al., Heteromerization of the Gammac Chain with the Interleukin-9 Receptor Alpha Subunit Leads to STAT Activation and Prevention of Apoptosis, *J. Biol Chem*, April 10, 1998, pp 9255-9260, Vol 273(15), Institute for Biochemistry, Free University Berlin, 14195 Berlin, Germany

CHANG et al., Isolation and Characterization of the Human Interleukin-9 Receptor Gene, *Blood*, June 1, 1994, pp. 3199-3205, Vol 83, No. 11, The American Society of Hematology

DEMOULIN et al., Interleukin 9 and its Receptor: An Overview of Structure and Function, *Int Rev Immunol*, 1998, pp 345-364, Vol. 16(3-4) Ludwig Institute for Cancer Research and Experimental Medicine Unit, Catholic University of Louvain, Brussels, Belgium

GRASSO et al., Molecular Analysis of Human Interleukin-9 Receptor Transcripts in Peripheral Blood Mononuclear Cells. Identification of a Splice4 Variant Encoding for a Nonfunctional Cell Receptor, *J Biol Chem*, Sept. 11, 1998, pp 24016-24024, Vol. 273(37), Magainin Institute of Molecular Medicine, Magainin Pharmaceuticals, Inc., Plymouth Meeting, PA USA

KERMOUNI et al., The IL-9 Receptor Gene (IL9R): Genomic Structure, Chromosomal Localization in the Pseudoautosomal Region of the Long Arm of the Sex Chromosomes, and Identification of IL9R Pseudogenes at 9qter, 10pter, 16pter and 18pter, *Genomics*, 1995, pp 371-382, Vol. 29, Academic Press, Inc.

Alignment of Nucleotide and Amino Acid Sequences of hl64451 (SEQ ID NOS:1 and 2, respectively) versus AC 31362 disclosed in WP 99/47675 (SEQ ID NOS:1 and 2)

Alignment of Nucleotide and Amino Acid Sequences of hl64451 (SEQ ID NOS: 1 and 2 respectively) versus AC 37187 disclosed in WP 99/67290 (SEQ ID NOS: 8 and 7)

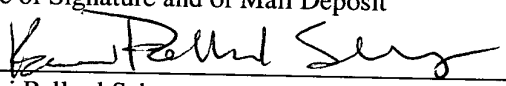
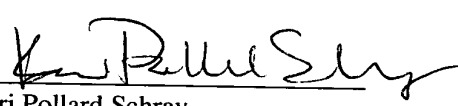
Alignment of Nucleotide and Amino Acid Sequences of hl64451 (SEQ ID NOS: 1 and 2 respectively) versus AC 38159 disclosed in WO 00/08152 (SEQ ID NOS: 5 and 6)

**Section 3. Copies of Listed Information Items Accompanying This Statement**

No copies of all items listed in Forms PTO/SB/08A and 08B (substitute for Form PTO-1449) accompany this information statement. All items have been submitted in previous application (See Section 2).

The person making this certification is:

- a. the practitioner who signs below on the basis of the information in the practitioner's file.

<p><u>Certificate of First Class Mailing (37 CFR 1.8(a))</u></p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on the date set forth below.</p> <p><u>December 4, 2001</u></p> <p>Date of Signature and of Mail Deposit</p> <p></p> <p>Kerri Pollard Schray</p>	<p>MILLENNIUM PHARMACEUTICALS, INC.</p> <p>By </p> <p>Kerri Pollard Schray Registration No. 47,066 75 Sidney Street Cambridge, MA 02139 Telephone - 617-551-3676 Facsimile - 617-551-8820</p>
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**Complete if Known**

<b>Applicati n Number</b>	09/965,313
<b>Filing Date</b>	09/26/2001
<b>First Named Inventor</b>	Martin R. Hodge
<b>Group Art Unit</b>	1644
<b>Examiner Name</b>	
<b>Attorney Docket Number</b>	MPI1999-016CP1CN1(M)

(use as many sheets as necessary)

Sheet	1	of	1
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[illegible][illegible]

Date	
Considered	

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

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Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 1

**Complete if Known**

Application Number	09/965,313
Filing Date	09/26/2001
First Named Inventor	Martin R. Hodge
Group Art Unit	1644
Examiner Name	
Attorney Docket Number	MPI1999-016CP1CN1 (M)

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	6	HILLIER ET AL., "Generation and Analysis of 280,000 Human Expressed Sequence Tags," Genome Research, p. 807-828, ( December 3, 1996).	
	7	LOFTUS ET AL., "Genome Duplications and Other Features in 12 Mb of DNA Sequence from Human Chromosome," Genomics, p. 295-308, ( December 3, 1999).	
	8	SCHMITT ET AL., "Affinity Purification of Histidine-Tagged Proteins," Molecular Biology, p. 223-230, ( December 3, 1993).	
	9	CHANG ET AL., "Isolation and Characterization of the Human Interleukin-9 Receptor Gene," Blood, The American Society of Hematology, Vol. 83 ( No. 11), p. 3199-3205, ( June 1, 1994).	
	10	ALIGNMENT OF NUCLEOTIDE AND AMINO ACID SEQUENCES OF HL64451 (SEQ ID NOS:1 AND 2, RESPECTIVELY) VERSUS AC 31362 DISCLOSED IN WO 99/47675 (SEQ ID NOS: 1 AND 2),	
	11	ALIGNMENT OF NUCLEOTIDE AND AMINO ACID SEQUENCES OF HL64451 (SEQ ID NOS: 1 AND 2 RESPECTIVELY) VERSUS AC 37187 DISCLOSED IN WO 99/67290 (SEQ ID NOS:8 AND 7),	
	12	ALIGNMENT OF NUCLEOTIDE AND AMINO ACID SEQUENCES OF HL64451 (SEQ ID NOS:1 AND 2 RESPECTIVELY) VERSUS AC 38159 DISCLOSED IN WO 00/08152 (SEQ ID NOS:5 AND 6),	
	13	BAUER ET AL., "Heteromerization of the Gammac Chain with the Interleukin-9 Receptor Alpha Subunit Leads to STAT Activation and Prevention of Apoptosis," J. Biol Chem., Vol. 273 ( No. 15), p. 9255-9260, ( April 10, 1998).	
	14	DEMOULIN ET AL., "Interleukin 9 and its Receptor: An Overview fo Structure and Function," Int. Rev. Immunol., Ludwig Institute for Cancer Research and Experimental Medicine Unit, Catholic University of Louvain (Brussels, Belgium), Vol. 16 ( No. 3-4), p. 345-364, ( December 3, 1998).	
	15	GRASSO ET AL., "Molecular Analysis of Human Interleukin-9 Receptor Transcripts in Peripheral Blood Mononuclear Cells. Identification of a Splice4 Variant Encoding for a Nonfunctional Cell Receptor," J. Biol. Chem., Vol. 273 ( No. 37), p. 2401624024, ( September 11, 1998).	
	16	KERMOUNI ET AL., "The IL-9 Receptor Gene (IL94): Genomic Structure, Chromosomal Localization in the Pseudoautosomal Region of the Long Arm of the Sex Chromosomes, and Identification of IL9R Pseudogenes at 9qter, 10pter, 16pter and 18pter," Genomics, p. 371-382, ( December 3, 1995).	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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